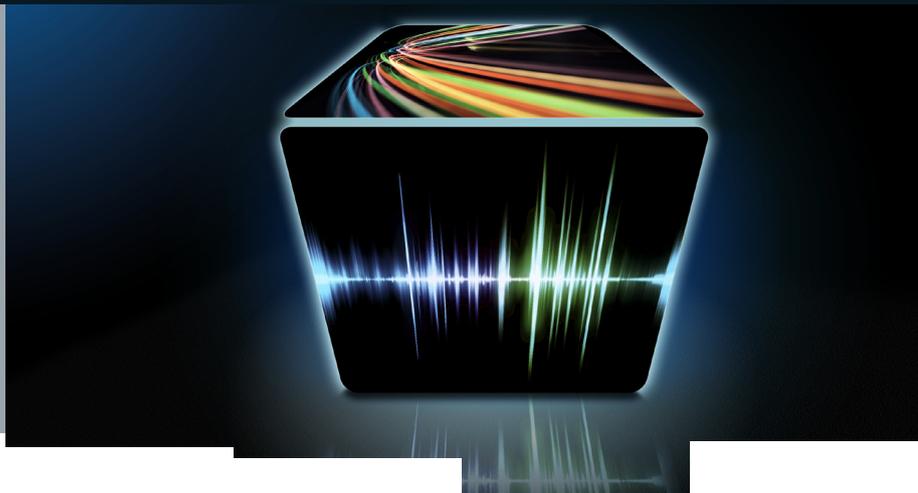# technicolor

DHG544B
VoIP Cable Modem

On January 27th 2010, Thomson changed its company name to Technicolor. All product data sheets, including those for products which still carry the Thomson name, now reflect our new Technicolor brand.

Following the technology evolution, Technicolor is pleased to introduce the DHG544B EMTA modem. This Voice Cable Modem is an indoor EMTA (Embedded Multimedia Terminal Adapter) solution based on DOCSIS™ 2.0 and PacketCable standards.

This product is upgradeable to PacketCable 2.0 and is IPv6 ready.

Easy to Use, Easy to Install

As all Technicolor gateways, the DHG544B with Ethernet port is an easy to use, easy to install gateway.

For convenience of the end user, the easy-to-access LEDs provide a clear indication of start-up sequence and connectivity status.

Multiple integrated Web pages allow direct access to the status and settings, including privacy and security information.

Advanced Voice Performance

All standard codecs are supported, including the new iLBC and BV16. 300 MHz Dual Instruction MIPS32 CPU and DSP Instruction Extensions for VoIP in order to guarantee superior performance. Gateway and Voice operations support data throughput and complex voice codec calls simultaneously.

Advanced Diagnostics

- Web pages to facilitate installation and troubleshooting
- Easy configuration and set-up
- Remote access via Telnet, SNMP, Web Page
- Post-installation easily managed with SNMP

CABLE

DATA
VOICE

Features at a Glance

- DOCSIS 2.0 certified
- PacketCable 1.0, 1.1, 1.5 certified; 2.0 upgradeable (optional configuration: SIP)
- Propane™ technology, enabling the connection of more Internet users without additional network bandwidth
- Ethernet port for wired connectivity and easy installation
- Reliable high-performance platform
- IPv6 ready

EXCENTIS   Cable Europe Labs

DHG544B
VoIP
Cable Modem

Technical Specifications

Standards / Certifications

■ Data	DOCSIS 2.0 certified
■ Voice	PacketCable 2.0 certified
■ CMTS Interoperability	Any qualified DOCSIS CMTS

Receiver

■ Downstream Modulation	QAM 64/256
■ Downstream Frequency Range	88-860 MHz , 1GHz tuning capabilities
■ Maximum Downstream Data Range	30.34/42.88 Mbps (QAM 64/ QAM 256)
■ Input Signal Level Range	-15 to +15 dBmV (QAM 64) -15 to +15 dBmV (QAM 256)
■ BER	<1x10-8 @ C/N=23,5dB, QAM 64 with FEC, <1x10-8 @ C/N=30dB, QAM 256 with FEC, received power = -6dBmV to +15dBmV <1x10-8 @ C/N=33dB, QAM 256 with FEC, received power = -15dBmV to –6dBmV
■ Input Impedance	75 Ohm

Transmitter

■ Upstream Modulation	QPSK and 16 QAM
■ Additional Upstream Modulation Types	QAM 8/32/64 for A-TDMA and QAM 128 for S-CDMA channels
■ Upstream Frequency Range	5-42 MHz
■ Maximum Upstream Data Range	30.72 Mbps (QAM 64)
■ Output Signal Level Range	A-TDMA: +8 to +58 dBmV/QPSK +8 to +55 dBmV @ QAM 8/16 +8 to +54 dBmV @ QAM 32/64 S-CDMA: +8 to +53 dBmv/All
■ Output Impedance	75 Ohm
■ Channel Bandwidth	Programmable (200*N KHz) N=1, 2, 4, 8, 16, 32
■ Automatic Level Adjust	yes
■ Gain Control Range	50dB
■ Frequency Stability	± 5 kHz

Telephony Features

■ Audio Codecs	PCM A-law, PCM µ-law, G.729, G.729a, G.729e, G.728, iLBC and BV16
■ Multi-line Phone Support	Yes, Two phone lines, three-party conference calls, can support two complex voice codecs simultaneously
■ Fax Relay	T.38
■ DTMF Tone relay	RFC2833
■ Caller ID	Type I and Type II
■ CLASS features	BASIC and Extended CLASS features
VAD (Voice Activity Detection)	yes
CNG (Comfort Noise Generation)	yes
Echo cancellation	G.165/G.168 up to 16ms
Packet Tone	DTMF generation/Call Progress Generation/Custom Tone Generation
Call discrimination	Fax and Modem Detection
Telephony interface capabilities	Loop-back and on demand diagnostic
Modems	Up to V.90 (38.5kbps)
RFC2833 DTMF Tone relay	Enabled/disabled via SNMP and Telnet
REN	5 REN
Pulse dialing	DTMF tones to pulse tones conversion and pulse to DTMF tones conversion

VoIP Call Control

RTP layer	RFC1889/RFC1890
RTCP statistics collection	yes
PacketCable Protocols	Protocol (PKT-SP-EC-MGCP)

PC Compatible

■ CPU	486DX 66MHz (Pentium Preferred)
■ Memory	RAM 16MB (32MB Preferred)
■ Operating Systems	Windows 7, Vista, XP, Me and 2000
■ Available Disk Space	76 MB
■ Sound Card	16-Bit
■ Video	VGA (SVGA Preferred)
■ Ethernet Port	10/100 Base-T
■ Drive	CD-ROM

DHG544B
VoIP
Cable Modem

Technical Specifications

Software Features

■ Software Downloadable	yes
■ Multiple Client Support	254
■ Class of Services (CoS)	16 SIDs
■ Protocol Filtering	Ethernet & IP
■ SNMP Management	V2, V3
■ Security	BPI+
■ Privacy	Through encryption between gateway and PC
■ HTTP Server (CM status)	yes

Interfaces / Physical

■ Ethernet	1 x RJ45 - 10/100 Base-T auto detect
■ Telephone line	2x RJ11
■ RF Connector	1 x F-Type
■ Buttons	Reset, on/off
■ LEDs	Tel1, Tel2, Message, Cable Activity, Cable Link, PC Link, Internet
■ Power Supply	External, Wide Range, 100-240 V
■ Operating Temperature	0˚C to 40˚C
■ Operating Humidity	20% to 90% non-condensing
■ Storage Temperature	-20˚C to 70˚C
■ Safety	CB Certificate / Anatel

Packaging Information

■ Cabinet Dimensions	mm: 183 (L) x 130 (D) x 50 (H)
■ Packaging Dimensions	mm: 310 (L) x 180 (D) x 95 (H)
■ Shipping Weight	Approx. 1.2 kg
■ Master-pack Dimensions	mm: 385 (L) x 398 (D) x 395 (H)
■ Master-pack Shipping Weight	Approx. 15kg
■ Master-pack Quantity	12 units

Content of the Box

- ■ Cable Gateway
- ■ Power Supply Pack
- ■ Ethernet Cable
- ■ CD-ROM
- ■ Quick Installation Guide

Technicolor Professional Services are available to address your demands for qualified technical support & warranty, product maintenance, access to training courses and tailor-made solutions to specific product evolution. For more information, please ask your usual contact person.

technicolor